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A SMUT ON IRESINE

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Among some specimens of insect-gall material collected by Mr. Chas. C. Dean in Indiana and sent to Dr. B. W. Wells of the

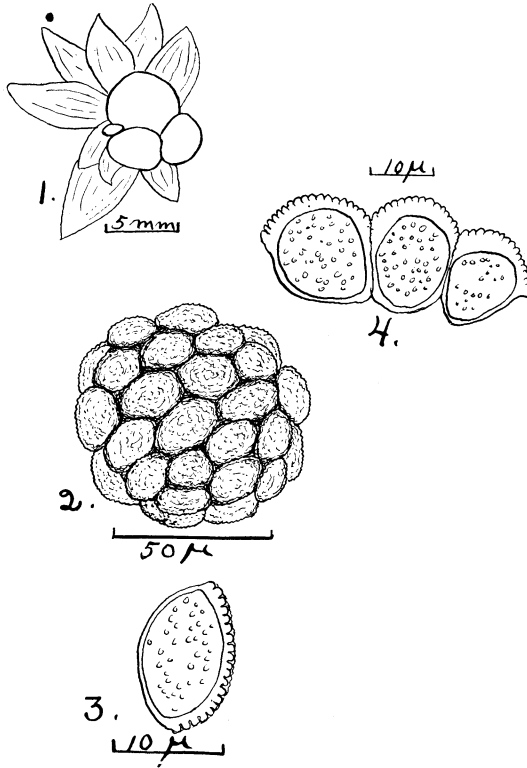


FIG. 1. *Tolyposporium iresine* sori in ovaries of *Iresine paniculata*.
FIG. 2. Spore-ball of *T. iresine*. FIG. 3. Single spore of *T. iresine*.
FIG. 4. Three united spores of *T. iresine*.

University of Arkansas for identification, was a very interesting smut affecting the ovaries of *Iresine paniculata* (L.) Ktze. In response to an inquiry, Miss Vera K. Charles reported that no

record of a smut on *Iresine* or any of its near relatives could be found in the host index of the Bureau of Plant Industry.

According to Clinton's key in *North American Flora*, the smut belongs in the genus *Tolyposporium*, but no species described by Clinton fits the smut found on *Iresine*, which is therefore described here as new.

As southern Indiana approaches the northern limit of *Iresine paniculata*, it was thought that the smut might be found in Arkansas, where the plant is a very common weed. No specimens of the smut could be found here, however, in the limited search made during the past season, and so far the smut is known only from the place where it was collected by Mr. Dean.

***Tolyposporium iresine* sp. nov.**

Sori in ovaries, infecting all the ovaries of a flower, sparingly scattered throughout the inflorescence, subglobose to globose, 1-5 mm. in diameter, covered with a gray-green, rather tough membrane which on rupturing discloses the granular spore-mass; spore-balls olive-brown, translucent to nearly opaque, subspherical to spherical, firm, composed of from 15-75 spores, 32-70 μ in length, mostly about 60 μ ; spores olive-brown, subspherical, lens-shaped, to irregular depending on compression due to surrounding cells, adhering in a hollow ball by folds of their outer thickened, rugose membrane, which may entirely separate from some of the cells on rupturing, 12-20 μ in diameter.

On *Iresine paniculata*, Posey County, Indiana. Collected by Chas. C. Dean, Sept. 21, 1918. Flora of Indiana, No. 26, 651. Known only from the type locality.

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